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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/727,758	12/03/2003	John A. Helgenberg	TN323	7620

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EXAMINER

CHANG, YEAN HSI

ART UNIT PAPER NUMBER

2835

DATE MAILED: 04/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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# Office Action Summary

Application No.

10/727,758

Applicant(s)

HELGENBERG ET AL.

Examiner

Yean-Hsi Chang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-17, 19, 20 and 22-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-15, 17, 19, 20 and 22-29 is/are rejected.
- 7) ☒ Claim(s) 8, 16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-6, 9-14 and 25-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. (US 6,392,149 B1) in view of McAnally et al. (US 6,070,742).

Kim teaches a cable routing system (112, fig. 3) facilitating interconnection between a computer system (fig. 3) and a chassis (102) that may be extended and retracted with respect to the computer system along at least one support member (116), said cable routing system comprising: a folding arm assembly (112) supported by the at least one support member such that said folding arm assembly is moveable between a retracted position (not shown) when the chassis is retracted with respect to the computer system and an extended position (fig. 3) when the chassis is extended with respect to the computer system, said folding arm assembly defining at least one channel (218) for routing a cable (220) between the chassis and the computer system (claims 1 and 9); wherein the support member includes an chassis support member (not labeled) slidingly engaged with a frame support member (not labeled) (claims 2 and 10);

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wherein said folding arm assembly is coupled to the frame support member (claims 3 and 11); wherein said folding arm assembly includes at least two arm portions (fig. 3, not labeled) hingedly coupled to one another, each of said arm portions defining a portion of said channel (claims 4-5 and 12-13); wherein at least one of said arm portions is hingedly coupled to the support member, said one and said another of said arm portions being hingedly coupled to one another (fig. 3) (claims 6 and 14); and a method of routing a cable claimed in claims 25-29.

Kim fails to teaches a strain relief supported by the at least one support member and positioned between said folding arm assembly and a termination point of the cable such that said strain relief substantially stabilizes the cable at the termination point.

McAnally teaches a cable routing system (200, fig. 12) comprising a strain relief (230) having tie-raps (760) to relief strains of the cable during extension and retraction.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Kim with the strain relief taught by McAnally for minimizing trains of the cables during extension and retraction of the chassis.

3. Claims 7 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. in view of McAnally et al., further in view of Mayer (US 6,305,556 B1).

Kim in view of McAnally discloses the claimed invention except indicating the support member including two rail systems, and the cable routing system comprising a clip coupled to each of the rail systems, and a strut extending between the clips.

Mayer teaches a cable arm assembly as stated above, comprising: at least one support member (312, fig. 4) including two rail systems (upper and lower), and a cable routing system (100) comprising rail clips (at upper and lower portions of 314) coupled to the rail systems, and a strut (316) extending between the clips.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Kim with the clips and strut taught by Mayer for showing how the cable arm assembly and the support member are coupled.

4. Claims 17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mayer in view of McAnally et al.

Mayer teaches an arm assembly (100, fig. 3) for holding a cable (108) interconnecting a computer system (fig. 2) and a chassis (106) that may be extended and retracted with respect to the computer system (fig. 2), said arm assembly comprising: a plurality of arm portions (300 and 302), each of said arm portions comprising a side surface (not labeled) and a base surface (not labeled) together at least partially defining a channel (fig. 2) configured to receive the cable (fig. 2), said arm portions being hingedly connected to one another (fig. 2) thereby facilitating extension and retraction of said arm assembly when the chassis is extended and retracted with respect to the computer system, wherein a ratio of a height of said side surface to a width of said base surface is at least about 4 to 1 (see fig. 3).

Mayer fails to teach the arm assembly being configured for pivotal engagement with a strain relief positioned between the arm assembly and the chassis.

McAnally teaches an arm assembly (200, fig. 12) comprising a strain relief (230) being configured for pivotal engagement between the arm assembly and a chassis (240) having tie-raps (760) to stabilizing a cable (450) at the strain relief during extension and retraction.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Mayer with the strain relief taught by McAnally for stabilizing the cable during extension and retraction of the chassis.

5. Claims 20 and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. in view of McAnally et al.

Kim teaches a support assembly (fig. 3) for supporting a chassis (102) that may be extended and retracted with respect to a frame (302), said support assembly comprising: a rail system (116) on each side of the frame, including a chassis portion (inner portion) and a frame portion (outer portion, see fig. 3), the chassis portion being coupled to the chassis and slidingly moveable with respect to said frame portion between a retracted position (not shown) when the chassis is retracted with respect to the frame and an extended position (fig. 3) when said chassis is extended with respect to the frame, said frame portion being configured to be coupled to the frame (fig. 3), and a plurality of arm portions (202 and 206) hingedly connected to one another and extending between said chassis portion of said rail system and said frame portion of said rail system (fig. 3) such that said arm portions are retracted with respect to one another when the chassis is retracted with respect to the frame, and said arm portions

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are extended with respect to one another when the chassis is extended with respect to the frame, each of said arm portions defining a channel (218) configured to receive a cable (220).

Kim fails to teach the arm assembly being configured for pivotal engagement with a strain relief positioned between the arm assembly and the chassis.

McAnally teaches an arm assembly (200, fig. 12) comprising a strain relief (230) being coupled to a chassis (240) and configured for pivotal engagement between the arm assembly and the chassis, and having tie-raps (760) to stabilizing a cable (450) at the strain relief during extension and retraction.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Kim with the strain relief taught by McAnally for stabilizing the cable during extension and retraction of the chassis.

### ***Allowable Subject Matter***

6. Claims 8 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter: The best prior art of record, Mayer (US 6,305,556 B1), Kim et al. (US 6,392,149 B1), and McAnally et al. (US 6,070,742), taken alone or in combination, fails to teach or reasonably suggest a rail clip coupled to a support member of a cable routing system of

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a computer system, being configured for compression and expansion in at least one dimension thereof through actuation of a spring loaded mechanism included in said rail clip such that each of said rail clips is coupled to a respective one of rail systems the support member by engaging each of said spring loaded mechanisms with a respective aperture of each of said rail systems as set forth in claims 8 and 16.

### ***Response to Arguments***

8. Applicant's arguments with respect to claims 17 and 20 have been considered but are moot in view of the new ground(s) of rejection.

9. Applicant's arguments filed Mar. 14, 2005 have been fully considered but they are not persuasive.

Applicants argue, "Kim et al. do not teach a strain relief, McAnally et al. also do not teach a strain relief positioned between the folding arm assembly and a termination point of the cable", "McAnally et al. fail to suggest any structure between a folding arm assembly and a cable's termination point", and "the third segment 230 of McAnally's folded cable arm assembly, whether or not combined with McAnally's cable fasteners 750 and 760, fails to constitute a strain relief".

Referring figs. 2, 4 and 7 of McAnally, the strain relief 230 is positioned between a folding arm assembly 210 and 220; with cable fasteners 750 and 760, the strain relief 230 substantially stabilizes a cable 450 at a termination point (claims 1 and 9) or at the strain relief (claims 17 and 20) as claimed in claims 1, 9, 17 and 20; and though the



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strain relief 230 is a third segment of the folding arm assembly, it performs a function of stabilizing a cable of claimed strain relief, therefore, it may be given the same name.

### ***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

### ***Correspondence***


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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yean-Hsi Chang whose telephone number is (571) 272-2038. The examiner can normally be reached on 07:30 - 16:00.

If attempts to reach the examiner by telephone are unsuccessful, the Art Unit phone number is (571) 272-2800, ext. 35. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3431 for regular communications and for After Final communications. There are RightFax numbers and provide the fax sender with an auto-reply fax verifying receipt by the USPTO: Before-Final (703-872-9318) and After-Final (703-872-9319).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-8558.

Yean-Hsi Chang  
Primary Examiner  
Art Unit: 2835  
April 6, 2005



**YEAN-HSI CHANG**  
**PRIMARY EXAMINER**